

**INVENTORY MANAGEMENT SYSTEM  
FOR AUTOMATICALLY INTEGRATING INFORMATION  
RELATED TO FUTURE ORDERS AND DELIVERY**

**5 FIELD OF THE INVENTION**

The present invention relates to inventory management system, and more particularly to such an inventory management system for automatically integrating information related to future orders and delivery.

**10 BACKGROUND OF THE INVENTION**

Information technologies have known a rapid and a spectacular development in decades. And in turn competition has become even fierce in all fields. Also, an increasing use of telecommunications and the convenience of transportation have expanded global commerce and trade significantly. In view of this, almost all well known product manufacturers endeavor to research and analyze resources of manpower, capitals, technologies, and distribution in the world. Thereafter, it is possible of utilizing characteristics and advantages associated with various regions in the world for establishing branches of research and development, manufacturing, and trade therein. In one aspect, the research and development branch can tailor the needs of local market to design appropriate products. Further, the manufacturing branch may manufacture the same. Finally, the manufactured products may be delivered to the consumers through associated distributors in the world. This process can significantly reduce cost and delivery time as well as enhance competition.

As stated above, almost all well known product manufacturers endeavor to integrate their design, development, manufacturing, and marketing in their global strategy. Further, the research and development branch is required to tailor the

needs of local market to design appropriate products. Finally, the manufactured products may be quickly delivered to the consumers through associated distributors in the world. As to the product manufacturers, they have to increase information communication efficiency thereof so as to cooperate with associated manufacturers. Also, the communication should be efficient and accurate. With this, it is possible of truly reflecting markets, quickly delivering goods, and minimizing inventory. As a result, the purposes of attracting consumers with such products and being competitive in the markets are obtained.

In general, a mechanism for estimating future needs is established among buyers, products manufacturers, and component part suppliers (or manufacturer) under above manufacturing mode wherein a network connection is utilized to interconnect computer systems among buyers, product manufacturers and component part suppliers. This establishes a communication channel among them. Hence, product manufacturer may estimate quantity of component parts demanded by buyers (by estimation also) in a forthcoming period of time. And in turn, component part suppliers may be informed of the quantity of estimated component parts by product manufacturer. Hence, component part suppliers can estimate possible quantity of supplied component parts based on inventory and production thereof during the specified period of time. This can minimize inventory cost. Also, product manufacturer can take the estimated quantity of component parts as a basis for accepting orders from buyers. Eventually, after ordering buyer may be assured of obtaining the desired goods from product manufacturer after the specified period of time.

Conventionally, estimated quantity of component parts demanded by buyers in a forthcoming period of time are written into a document prior to informing product manufacturer. But the specifications of products vary rapidly in recent years. Hence, buyer may assign items of document as component parts of

product. Such itemized document may be sent to product manufacturer through network connection for estimating demands in a forthcoming period of time. In the example of notebook computer, items listed in document may comprises specifications and quantity of central processing unit (CPU), hard disk drive, CD-ROM, sound card, display, and so on. As such, product manufacturer may store sufficient component parts for tailoring manufacturing needs. However, in fact buyer assigns items of document as model of product (e.g., model of notebook computer). Then product manufacturer manufactures products based on orders from buyer and specifications thereof. Finally, delivery department may deliver based on models of products after the product manufacturing. Hence, after finishing the transaction, product manufacturer cannot delete assembled component parts from inventory in database immediately. As a result, there is an inconsistency (sometimes significant) between shown inventory and actual inventory in database with respect to component parts. In response, product manufacturer may usually require employees to check inventory of component parts manually. This is time and labor consuming. Further, a potential error in above manual checking may adversely affect the accuracy of inventory of component parts. This in turn brings a number of disadvantages such as insufficient component parts and thus delivery delay, or excessive component parts and thus inventory cost increase.

Thus, it is desirable to provide an improved inventory management system for automatically integrating information related to future orders and delivery in order to overcome the above drawbacks of prior art

## SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an inventory management system including a database, a conversion table, and a network